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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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07/28/2003

Paul L. Baker

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EXAMINER

OBEID, MAMON A

ART UNIT

PAPER NUMBER

3621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/627,919	Applicant(s) BAKER, PAUL L.	
	Examiner MAMON OBEID	Art Unit 3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7- 10, 12- 15, 17-24 and 25- 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7- 10, 12- 15, 17-24 and 25- 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/15/2008</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 15, 2008 has been entered.

Acknowledgements

2. Claims 1- 6, 16 have been canceled.
3. Claims 7- 10, 12- 15 and 17-24 have been amended.
4. Claims 25 29 have been added.
5. Applicant Admission that a "one-way encryption" is old and well known in the art in the "Argument/ Remarks" filed on January 15, 2008 is acknowledged.
6. Claims 7- 10, 12- 15, 17-24 and 25- 29 are currently pending and have been examined.

Information Disclosure Statement

7. The Information Disclosure Statement filed on January 15, 2008 has been considered. An initialed copy of the Form 1449 is enclosed herewith.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

9. Claims 7- 10 11- 15 and 25- 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Independent claim (25) recites the limitation *"wherein the party who is asked to begin negotiation sends an encryption key to the other party"*. The Applicant does not refer to a party being asked in any preceding steps. For the purpose of this examination, the Examiner will interpret the above limitation as 'wherein the party who is selected to begin negotiation sends an encryption key to the other party'.

b. The term "one-way encryption key" in at least claims 8 and 26 is a relative term, which renders the claim indefinite. The term "one-way encryption key" is not defined by the claim, the specification does not lexicographically define the term, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. If Applicant believes that the term "the one-way encryption key" is old and well know in the art, should expressly state on the

record that the claim term is old and well known in the art and provide appropriate evidence in support thereof (e.g. a U.S. Patent).

c. Claim 8 recites the limitation "the one-way encryption key". There is insufficient antecedent basis for this limitation in the claim. For examination purposes, the Examiner interprets the above limitation as any 'general encryption key'.

d. Claim 9 recites the limitation "wherein both parties never receive a copy of the opposite party's negotiation", which contradicts the limitation in claim (25) that recites "wherein the broker provides the parties with a copy of an encrypted basis-for-agreement". The " encrypted basis-for-agreement" has to include at least part of the negotiation position of both parties, else there would be no way for both parties to come into agreement. Proper clarification is required.

e. The term "may" in claim 11 is a relative term which renders the claim indefinite. The term "may" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "may" does not recite a positive step, that is each party may or may not modify their negotiation position.

f. The term "has the opportunity" in claim 10 is a relative term which renders the claim indefinite. The term " has the opportunity " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "has the opportunity" does not recite a positive step, and therefore, the Examiner is unclear if a party does select a negotiation partners.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 8- 13, 17, 19-23, 25, 28 and 29 are rejected under 35 U.S.C. 102(b) as being unpatentable over De Vries U.S. Patent Application Publication No. (2002/0184153 A1) ("De Vries") in view of Nagel et al. (U.S. Patent No. 7, 181, 017 B1), ("Nagel").

12. **As per claims 25, 28 and 29** : De Vries discloses the following limitations:

a. *conducting a negotiation between two parties through a broker* (§ [0007]);

- b. wherein each party receives from the broker a dictionary of words ("interests") for description of its negotiating positions (set of interests are predefined and broadcasted to users (¶ [0004]) , and a schema ("encoding module 235, 240 or 245") for descriptive statements in the negotiating position (¶ [0044]) ;*
- c. wherein the party who is asked to begin negotiation sends an encryption key to the other party (communication between parties is encrypted using a conventional key, ¶ [0047]);*
- d. wherein each party applies the encryption key to partially encrypt its negotiating position so that identical terms encrypt to identical values (¶'s [0014], [0047] and [0060]);*
- e. wherein each party sends its partially encrypted negotiating position to the broker ((¶ [0005]);*
- f. wherein said broker does not possess the encryption key and is unable to decrypt the negotiating positions (¶ [0005]),*
- g. wherein, upon receiving both partially encrypted negotiation positions, the broker compares them to discover whether there exists an encrypted statement that is common with both negotiating positions (¶ [0011]);*
- h. wherein the broker notifies each party about a basis-for-agreement (in the case when there is shared or common interest, an audible or visual alert is provide to both parties (¶ [0004])) ;*

- i. wherein the broker provides the parties with a copy of an encrypted basis-for- agreement (“matched interests”) (matched interests are disclosed to both parties and non-matched interests are never disclosed (¶s [0009], [0017], [0047]));*
- j. wherein each party decodes the basis-for-agreement (¶ [0047]) .*

13. De Vries does not expressly disclose *wherein said broker does not possess the encryption key and is unable to decrypt the negotiating positions* and partial encryption. However, Nagel discloses an intermediary, wherein the intermediary is unable to decrypt the communication or the user's private information (column 7, lines 3- 59); Nagel further discloses applying a “comprehension functions”, cryptography and steganography, to only a portion of the information in the message (column 17, lines 3- 25). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Devries teachings to include un-trusted broker/third-party (“intermediary”) and partial encryption disclosed by Nagel to avoid the possibility of revealing the users' personal information either by insecure trusted intermediary or host or by simply unauthorized decryption of the information (De Vries, ¶ [0007])) and (Nagel, (column 17, lines 3- 25)).

14. **As per claims 8, 26 and 27:** De Vries further discloses *wherein both parties use the one-way encryption key to derive a codebook from the dictionary* (¶s [0059], [0060]).

15. **As per claim 9:** De Vries further discloses *wherein both parties never receive a copy of the opposite party's negotiating position* (non matched interests are not disclosed, (¶ [0006], [0009])).

16. **As per claim 10:** De Vries further discloses *wherein the broker allows a party to see a list of potential negotiation partners and the party has the opportunity to make a selection of negotiating partners* (¶ [0016]) .

17. **As per claim 11:** De Vries further discloses *wherein each party may modify their negotiation position so that it is specific for each potential negotiating partner* (¶ [0016]) .

18. **As per claim 12:** De Vries discloses the limitations of claim 25 shown above, De Vries does not explicitly disclose *wherein the broker retains an historical record of the negotiation*. However, Nagel discloses *a transaction log 12* (column 20, lines 42- 56) Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify De Vries teachings to include a transaction record disclosed by Nagel to keep track of the negotiation activities for legal and binding purposes.

19. **As per claim 13:** De Vries discloses *wherein the broker is unable to decrypt the basis-for-agreement* (¶ [0005]).

20. **As per claim 17:** De Vries further discloses *developing the basis-for-agreement into a binding agreement by direct negotiation between the two parties* (§ [0016]).

21. **As per claims 19, 20 and 22:** De Vries discloses the limitations of claim 29 as shown above, De Vries does not disclose *wherein one- way encryption is applied to nouns and adjectives in a negotiating position; wherein conjunction, verbs and prepositions are non-encrypted in a negotiating position*. However, Nagel disclose applying a "comprehension function" to personally identifying information (column 17, lines 3- 24). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Devries teachings to partially encrypt information disclosed by Nagel, to avoid the possibility of revealing the users' identity information either by insecure trusted intermediary or host or by simply unauthorized decryption of the information (De Vries (§ [0007])) and (Nagel (column 17, lines 3- 24)).

22. **As per claims 21:** De Vries further discloses *wherein the broker compares sentences in the negotiation positions without decoding encrypted* (§'s [0005], [0045]).

23. **As per claims 23:** Vries further discloses *wherein data to be exchanged through the negotiation comprises intelligence data, price information, or intellectual property holdings* (§ [0013]).

24. **As per claims 23:** Vries further discloses *wherein the negotiating is online* (§ [0015]).

25. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination De Vries/ Nagel in view of Applicant's own Admission.

26. **As per claims 7 and 18:** The combination De Vries/ Nagel discloses all the limitations of claim 25 shown above. The combination does not disclose *wherein the schema uses XML, XML-DTD, or BNF Grammar*. However, Applicant admits that XML is old and well know in the art (see in Applicant's Patent Application Publication (§ [0018])). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the combination's teachings to include XML to allow users to create their own customized tags, enabling the definition, transmission, validation, and interpretation of data between applications and between organizations.

27. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Vries in view of Nagel and further in view of Snapp et al. (U.S. Patent No. 7, 302, 582 B2).

28. **As per claims 14 and 15:** De Vries discloses the limitations of claim 25 shown above, De Vries does not disclose *concealing numerical values and value ranges in a*

partially encrypted negotiating position of a party by linear mapping of numerical values using a secret offset and secret scaling factor. However, Snapp discloses linear mapping of numerical values using $2n$ bits value (column 6, lines 33- 53). De Vries further does not disclose *using the encryption key, encrypting the name of a named set of values as a number with $2n$ bits, separating the $2n$ bits into two numbers of n bits, and converting the two numbers of n bits to the offset and the scaling factor which are then applied to values in the value set.* However, Snapp discloses a “32 bit sample” that is divided into two objects, the first object consists of the leftmost 3 bits and the remaining 29 bits constitute the second object, both objects are applied to the “bit array 110” (column 6, lines 33- 53). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the combination (De Vries/ Nagel) teachings to include linear mapping of numerical values to increase security measures of confidential information.

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Walker et al, U.S. Patent No. (5, 794, 207) discloses facilitating buyer driven conditional purchase offer.
- b. Ströbel Michael “A Framework for Electronic Negotiations Based on Adjusted Winner Mediation”Proc. DEXA 2000 Workshop on e-Negotiations, London, UK.
- c. Ströbel Michael “A Matchmaking Component for the Discovery of Agreement and Negotiation Spaces in Electronic Markets” In: Proc. Group Decision and Negotiation Conference, La Rochelle, France, 2001, pp.61-75.

- d. Ströbel Michael "Design of Roles and Protocols for Electronic Negotiations" *Electronic Commerce Research*, Special Issue on Market Design, Vol.1, No.3, 2001, pp.335-353.
- e. Ströbel Michael , "Communication Design for Electronic Negotiations" Proc. 10th World Wide Web Conference, Hong Kong 2001, ACM Press, New York, pp.9-20.
- f. Skeen et al (U.S. Patent No. 7,284, 196 B2) discloses vocabulary and syntax based data transformation

30. **Examiner's Note:** The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mamon Obeid whose telephone number is (571) 270-1813. The examiner can normally be reached on Mon-Fri 9:30 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Fischer can be reached on (571) 272-6779. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mamon Obeid
Examiner
Art Unit: 3621
February 22, 2008

/ANDREW J. FISCHER/
Supervisory Patent Examiner, Art Unit 3621